

Cohorting Plan for Long Term Care Facilities

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COVID-19 has had a major impact in long term care (LTC) facilities. COVID-19 has a broad clinical presentation, long incubation period, and is transmissible through asymptomatic or pre-symptomatic individuals. The most effective way to prevent spread of COVID-19 in congregate settings is to create “zones” of similarly dispositioned patients by cohorting them in physically designated areas. Cohorting using symptom-based screening alone should be done only when necessary and with caution given the risk of asymptomatic or pre-symptomatic transmission. Cohorting is most effective when resources permit for rapid identification and isolation of infected and exposed residents and when there are dedicated staff and equipment for each cohort.

When testing capacity is available and facility spacing permits, residents should be organized into the following cohorts:

Red (COVID-19 Positive/Isolation) Zone:

- The “Red Zone” is divided into the “Dark Red Zone” and “Light Red Zone”.
- Dark Red Zone: All residents, including any new or re-admissions, known to have tested positive for COVID-19 (asymptomatic or symptomatic) who have not met the criteria to discontinue Transmission Based Precautions. Known COVID-19 positive patients can be cohorted together in this zone.
- Light Red Zone: All residents who are symptomatic and suspected to have COVID-19. Residents that are symptomatic and suspected to have COVID-19 are to be tested immediately and placed in the Light Red Unit even if the test results are not back.
- Confirmed positive (dark red) and suspected positive (light red) must not be housed in the same room.
- Healthcare workers should wear full personal protective equipment (PPE) (gloves, gown, N-95 mask and eye protection) when taking care of these patients.
- Dedicating staff to the red zone is highly recommended, whenever possible.
- After a COVID-19 positive resident meets the criteria to remove transmission-based precautions, the resident can be moved to the Green Zone.

Yellow (Quarantine/COVID-19 Negative, Exposed) Zone:

- All symptomatic and asymptomatic residents who test negative for COVID-19, with a known high risk exposure (i.e. 15 minutes over 24 hours without source protection) to a COVID-19 positive individual.
- Exposed residents must remain quarantined for 14 days from the last exposure, regardless of a negative test result. Residents who test negative for COVID-19 could be incubating and later test positive.
- Symptomatic and asymptomatic residents in the yellow zone should be housed separately. A symptomatic COVID-19 negative resident may still have another illness such as influenza.
- Asymptomatic residents should be closely monitored for symptom development.

- Healthcare workers should wear full PPE (gloves, gown, N-95 mask and eye protection) to take care of residents in the yellow zone.

Green (COVID-19 Negative, Not Exposed) Zone:

- All asymptomatic residents who test negative for COVID-19, with no COVID-19 like symptoms and no known COVID-19 exposures. COVID-19 negative and COVID-19 recovered patients may be cohorted in this zone.
- This cohort should only be created when the facility is relatively certain that residents have been properly isolated from all COVID-19 positive or COVID-19 exposed residents and staff.
- Fully vaccinated¹ new admissions or readmissions and have not had prolonged close contact with someone with SARS-CoV-2 infection in the prior 14 days. ²

Gray (Transitional/Quarantine) Zone:

- Gray zones are established to quarantine those residents who are at somewhat higher risk of being exposed to COVID-19 but have no known exposure to COVID-19.
- This zone should be established even when no COVID-19 case is identified at the facility and may consist of dedicating a geographically distinct area/unit/rooms.
- Symptomatic and asymptomatic residents in quarantine zone should not be cohorted together.
- If a resident in the Gray Zone becomes symptomatic, they should be isolated in this unit and immediately tested for COVID-19.
- All unvaccinated asymptomatic residents who have no known exposure to COVID-19:
 - upon admission or readmission from another healthcare facility;
 - after returning from a visit outside the facility
- Vaccinated new admissions/readmissions with a prolonged close contact with someone with SARS-CoV-2 infection in the prior 14 days.
- The residents must remain in this zone for 14 days to monitor for symptoms that may be consistent with COVID-19.
- If the resident remains asymptomatic at the end of 14-day period, the resident will be moved to the Green Zone.
- Testing for COVID-19 at the end of the 14-day quarantine period could be considered to increase certainty that the resident is not positive for COVID-19.
- Facilities should dedicate separate staff to take care of residents in gray zone.
- Facilities should implement COVID-level precautions for the residents admitted to the transition unit. If PPE supply is inadequate, nursing homes can consider limiting COVID-19 level precautions to only high-contact resident care-activities or aerosol generating procedures within the transition zone.
- Unvaccinated residents who are travelling in and out of the LTC facility for medical treatments, such as hemodialysis, could be included in the Gray Zone.

¹ Fully vaccinated means a person is ≥2 weeks following receipt of the second dose in a 2 dose series, or ≥2 weeks following receipt of one dose of a single-dose vaccine.

² Unvaccinated means a person who does not meet the definition of “fully vaccinated,” including people whose vaccination status is not known, for the purposes of this guidance.

- Residents that are less than 90 days from the date of COVID-19 symptom onset or positive COVID-19 test and have met the criteria to remove Transmission Based Precautions could also be included in the Red, Yellow or Green Zone.
- Unvaccinated residents that are a new admission/readmission and are beyond 90 days from the date of COVID-19 symptom onset or positive COVID-19 test must quarantine for 14 days.

Staffing Strategies:

Ideally, all zones (including dark and light red zones) should have dedicated staff. However, majority of the LTC facilities will not have the capacity to dedicate staff for each zone. Following rules can be applied for dedicating staff to different zones including when staffing is limited.

- LTC facilities should consider avoiding assigning those staff who are working in the red or yellow zones to the green or gray zone to the extent possible.
- If the facility is making a tough choice that in order to staff a yellow zone, they either have to pull a direct care staff from the green zone or red zone, it will be preferred to assign the red zone staff to cover the yellow zone too.
- If staff has to work in multiple zones, it will be preferred that they plan ahead and batch all the activities together in a way that they finish the work in one zone, to the extent possible, before moving on to the next zone. Extended use and reuse of PPE is not recommended when moving from zone to zone. Follow infection prevention and control procedures very strictly to avoid transmission between zones.

Outbreak crisis recommendations

In the event of widespread identified cases, focus should be placed on the Red and Yellow Zones. New admissions should stop until control measures are effectively instituted. Depending on a variety of factors (e.g. facility layout, private room availability, testing results) LTC facilities may not be able to effectively cohort, as described above. In situations where COVID-19 positive persons are located on multiple units/wings, the facility should follow the below recommendations:

- Implement Universal Transmission-Based Precautions using COVID-19 recommended PPE (i.e., N95 respirator or higher [or facemask if unavailable], eye protection, gloves, and isolation gown) for the care of all residents, regardless of presence of symptoms or COVID-19 status.
- Refer to CDC Optimizing Supply of PPE and Other Equipment during Shortages at: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>.
- Consider repurposing unused space such as therapy gyms, activity and dining rooms during this time to cohort residents.
- If there are multiple cases on the unit and when movement would otherwise introduce COVID-19 to another occupied unit, do not relocate the resident. Limit the movement of all residents and staff in general.
- Ensure appropriate use of engineering controls such as curtains between residents to reduce or eliminate exposures from infected individuals. This is especially important when semi-private rooms must be used. Allocate private rooms to maintain separation between residents, based on test results and clinical presentation. For example:
 - o COVID-19 positive persons may share a semi-private room to keep them grouped together.
 - ❖ Residents who are colonized with or infected with multidrug-resistant organisms (MDROs), including *Clostridium difficile*, should not be placed in a semiprivate room or group area when possible, unless their potential roommate(s) is/are colonized or infected with the same organism(s).

- o Private rooms may be allocated to isolate symptomatic persons or quarantine asymptomatic persons, based on availability.
- Shift focus to maintaining dedicated staff to each zone with a heightened focus on infection prevention and control audits (e.g., hand hygiene and PPE use) and providing feedback to staff on performance.
- When moving residents within the facility, move only one resident at a time and make sure all doors are closed and the corridors are empty to limit exposure to other facility residents.

Healthcare Personnel

Staff need an area during their shift to break safely from their PPE. Breakrooms have been linked to COVID-19 transmission. LTC facilities should establish a dedicated staff breakroom and restroom for each zone. Ideally, the Red Zone should have a breakroom specifically used by the dedicated Red Zone staff only.

Define a place and process in each of the zones for doffing PPE, hand hygiene, disinfecting PPE (face shield/eye protection), storing PPE, and donning PPE after the break. Ensure that the breakroom has enough space for social distancing and limit the number of staff present at any time. Consider signage and removing excess furniture to limit the number of staff in the room at one time. If possible, the breakroom should have a dedicated restroom. Clean and disinfect surfaces in the breakroom and staff restroom frequently (e.g., at a minimum daily).

If unable to dedicate an area for each zone, the priority is that the Red Zone have a separate breakroom for staff.

Fully vaccinated staff could dine and socialize together in breakrooms and conduct in-person meetings without source control or physical distancing; however, if unvaccinated staff are present, everyone should wear source control and unvaccinated staff should physically distance from others.

Frequently Asked Questions

What if space in our facility doesn't allow us to create a "separate unit" for these cohorts?

Facilities should do their best to designate separate units or floors for cohorts when available; however, any general physical separation may be acceptable. This may include one side of a wing/unit; a group of rooms at the end of a wing/hallway; or a repurposed group area such as a gym, cafeteria or other large communal space. Residents who are colonized with or infected with MDROs, including *Clostridium difficile*, should not be placed in a semi-private room or group area when possible, unless their potential roommate(s) is/are colonized or infected with the same organism(s).

LTC facilities that cannot properly cohort residents must consider transferring COVID-19 positive resident(s) to a facility that has an established COVID-19 positive unit. If a decision is made to transfer a COVID-19 positive resident to another LTC facility, the resident must be isolated until the time of the transfer.

What does it mean to dedicate staff to these cohorts?

To the extent possible, the same staff should be responsible for the care and services provided within individual zones. Staff caring for the COVID-19 Positive residents (Red Zone), should continue to only

care for residents in the Red Zone. All efforts should be made to keep staff working in their assigned zone. If staffing resources become strained, every effort should be made to prevent staff with high- and medium- level exposures to COVID-19 from working in the Green Zone and Gray Zone. When crisis level staffing is in place, ensure staff are prioritizing rounding in a “well to ill” flow to minimize risk of cross-contamination (i.e., beginning with Standard Precaution care areas and working toward Transmission-Based Precaution, then finally outbreak areas).

Can medical equipment be used across cohorts?

Dedicate medical equipment to the COVID-19 Positive Red Zone. Medical equipment should not be shared across zones. If this is not possible, equipment should be used by rounding in a “well to ill” flow to minimize risk of cross-contamination. All equipment should be appropriately cleaned and disinfected according the manufacturer's instructions between resident use.

When can residents be removed from isolation and the COVID-19 Positive (Red Zone) area?

Decisions to extend or remove persons from Transmission-Based Precautions should be made in consultation with a healthcare provider and is subject to differences in disease course, symptoms, living situation, available resources and clinical management. Refer to the guidance [Discontinuation of Transmission-Based Precautions and Disposition of Patients with SARS-CoV-2 Infection in Healthcare Settings.](#)

How do we determine resident exposures?

The index of suspicion for an exposure should be low, as COVID-19 has been seen to rapidly progress throughout LTC facilities. Exposures may include shared staff; shared equipment; or being housed on the same unit with a COVID-19 positive person. Facilities should identify residents who were cared for by staff who are COVID-19 positive or suspected of having COVID-19. Exposures should be traced back to 48 hours prior to symptom onset or positive test for asymptomatic positive staff, as the exposed resident may later develop symptoms of COVID-19 or test positive. Residents who are identified as a close contact (e.g., cared for by these staff should be restricted to their room and be cared for using all recommended COVID-19 PPE until results of the staff COVID-19 testing are known. If the staff is diagnosed with COVID-19, residents should be cared for using all recommended COVID-19 PPE until 14 days after last exposure and outbreak testing should be implemented. Lab confirmed COVID-19 positive residents should be relocated to the Red Zone.

Rapid isolation is key. Once there are multiple cases or exposures on a unit, transition the unit to the appropriate zone and focus efforts on rapid implementation of control measures for unaffected units (i.e., containment efforts). Ensure appropriate use of engineering controls such as curtains to reduce or eliminate exposures from infected individuals.

Do residents who routinely leave the facility need to be quarantined?

The facility should defer to their established policy and procedures based on their population and assessment of risk to determine if quarantine is indicated (e.g., spending at least 15 cumulative minutes of exposure at a distance of less than 6 feet to an infected person during a 24-hour period). Exposure risk may vary based on the local community transmission. The risk assessment should include factors such as community transmission; infection prevention and control compliance from transport

personnel, the resident, and receiving facility staff; and the presence of COVID-19 positive cases(s) at the sending and/or receiving facility. In general, the focus should be adherence to recommended infection prevention and control measures (e.g., audits of process monitoring) with routine monitoring for any development of symptoms. If available, these residents may be prioritized for a private room or cohorted with others who frequently leave the facility.

What should we do about roommates of residents who are symptomatic or COVID-19 positive?

Roommates may already be exposed; it is generally not recommended to separate them given spatial limitations. Ensure appropriate use of engineering controls such as curtains to reduce or eliminate exposures between roommates. Roommates of a laboratory confirmed COVID-19 positive case should be considered exposed but may be kept isolated in their room after the COVID-19 positive resident is transitioned to the Red Zone.

Note: When movement would otherwise introduce COVID-19 to another occupied unit, do not relocate the resident. The exposed roommate should be cared for using all COVID-19 recommended PPE and monitored for 14 days from last exposure to the known COVID-19 case, for development of symptoms. Testing should be performed immediately.

What types of precautions should be used in each cohort?

Regardless of cohort, all staff should adhere to Standard Precautions and any necessary Transmission-Based Precautions according to clinical presentation and diagnosis, when caring for any residents. Full Transmission-Based Precautions and all recommended COVID-19 PPE should be used for all residents who are:

- COVID-19 positive
- Symptomatic or suspected of having COVID-19
- Unvaccinated new and re-admissions
- Exposed to any COVID-19 positive person (e.g., staff, visitor, roommate)
- Facility wide, regardless of presence of symptoms, when transmission is suspected or identified to have occurred within the facility

Facilities should implement protocols for extended use of PPE, if resources are limited. Staff should wear eye protection and an N95 respirator or higher (or facemask if unavailable) at all times while in the Red and Yellow Zones with gown and gloves added when entering resident rooms. Facilities should consider this same approach for designated resident care areas of persons who are exposed. As part of source control efforts, staff should wear a facemask at all times while they are in the LTC facility. There should be emphasis on residents practicing basic infection prevention and control measures including source control, especially during direct care.

Dementia/Memory Care Units

Infection prevention and control strategies are especially challenging in dedicated dementia/memory care areas. If a resident in a dementia/memory care area is found to be COVID-19 positive or symptomatic/suspected of having COVID-19, the LTC facility must consider the potential risks and benefits of moving residents out of this dedicated area. LTC facilities may determine that it is safer to create Red, Yellow and/or Green Zones within the Dementia/Memory Care and dedicate staff appropriately.

Resources

CDC, Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings – Recommendations of the Healthcare Infection Control Practices Advisory Committee

<https://www.cdc.gov/hicpac/pdf/core-practices.pdf>

CDC, Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>

CDC Strategies to Optimize the Supply of PPE and Equipment

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>

CDC Responding to Coronavirus (COVID-19) in Nursing Homes

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/nursing-homes-responding.html>

CDC, Considerations for Memory Care Units in Long-term Care Facilities

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/memory-care.html>